

Comparison of Public Health Assessments and Risk Assessments

Issue	Public Health Assessments (PHA)	Risk Assessments (RA)
What it is:	<ul style="list-style-type: none"> ■ A process to evaluate exposure to chemicals in the environment and the impact of those exposures on public health ■ It defines likely exposure pathways and potentially exposed populations to address community health concerns ■ It recommends actions to protect public health 	<ul style="list-style-type: none"> ■ A process to provide risk managers and the community with an understanding of the potential human health risk posed by a site in the absence of any cleanup ■ A transparent assessment process for making consistent remedial decisions that are protective of human health and ecological receptors ■ It estimates unacceptable risks as defined by regulatory standards and requirements
What it is not:	<ul style="list-style-type: none"> ■ A medical evaluation ■ A health study ■ A regulatory document ■ An evaluation of ecological risks 	<ul style="list-style-type: none"> ■ A prediction of the likely health effects from exposure ■ A document containing public health recommendations
Data / Information Used	<ul style="list-style-type: none"> ■ Environmental & biologic data ■ Community health concerns ■ Health effects data (i.e., epidemiological, toxicological, and health outcome data) ■ Site-specific exposure considerations ■ Health guidelines to screen for chemicals needing further evaluation 	<ul style="list-style-type: none"> ■ Environmental data ■ Remedial goals ■ Toxicity data ■ Default and site specific exposure assumptions ■ Regulatory guidelines to determine unacceptable risk that need to be addressed through remediation

Issue	Public Health Assessments (PHA)	Risk Assessments (RA)
Health Guidelines Used	<p>For Screening:</p> <ul style="list-style-type: none"> ■ Minimal Risk Levels (MRLs) ■ Reference Doses (RfDs) ■ Reference Concentration (RfCs) ■ 10^{-6} cancer risk 	<p>To Determine Unacceptable Risk:</p> <ul style="list-style-type: none"> ■ RfDs ■ RfCs ■ 10^{-4} to 10^{-6} cancer risk ■ Cancer Slope Factors
Findings	<ul style="list-style-type: none"> ■ Identify actual chemical and radiological exposures to environmental contamination ■ Assess real or perceived site-related health problems ■ Focus on the past, the present and the future ■ Recommend measures to prevent or reduce exposure ■ Develop mechanisms to re-evaluate public health issues as site conditions change ■ Recommend health-based follow-up actions 	<ul style="list-style-type: none"> ■ Calculate reasonable maximum exposures to derive cleanup goals that are protective of sensitive populations and ecological endpoints ■ Establish site-specific cleanup goals ■ Focus on the present and the future
Outcome / Endpoint	<ul style="list-style-type: none"> ■ Reduce exposures ■ Fill data gaps (via sampling or research) ■ Health Studies ■ Health Education ■ Exposure Registries ■ Address community concerns ■ Leverage public and private partnerships to implement public health actions 	<ul style="list-style-type: none"> ■ Support for regulatory decisions (based on human and ecological risks)

**For a more detailed comparison, see
 "A Citizen's Guide to Risk and Health Assessments at Contaminated Sites," November 2003.*